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COPING WITH JOB STRESS

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This paper is a condensed version of a paper that was presented at the *42nd Annual Meeting of the Academy of Management at New York,* August 15–18, 1982. The paper has been modified to meet the style requirements of *The Michigan Economy*. Details of the measures used, the statistical techniques applied, and results of data analysis are available from the author.

Recent literature in the field of organizational stress (Cooper and Marshall, 1977; Beehr and Newman, 1978; Van Sell, Brief, and Schuler, 1981) has documented the deleterious consequences of various job stressors , particularly role conflict, role ambiguity, and role overload, for both the individual and the organization. Among the most frequently reported outcomes of these role-based stressors are job dissatisfaction, job-related tension, job-related threat, job-induced anxiety, propensity to leave, and voluntary turnover. Although a variety of stress-reducing mechanisms have been suggested in the popular literature, "very few of the purported strategies for handling job stress have been evaluated with any sort of scientific rigor" (Newman and Beehr, 1979, p. 3). The purpose of this study was to identify and measure the coping strategies used by managers in response to various stressors encountered in the organizational setting.

Previous research (Burke and Belcourt, 1974; Cooper and Marshall, 1977; Dohrenwend, 1961) suggests that not all coping behaviors are functional and that individuals may exhibit both adaptive and maladaptive responses in their effort to vitiate or manage stress. The study therefore distinguished between adaptive and maladaptitve coping behaviors. Based on the two-fold classification of coping behaviors proposed by Kahn and his associates (Kahn, Wolfe, Quinn, Snoek, and Rosenthal, 1964), adaptive coping can be described as problem-solving approaches aimed at dealing directly with the stressful situation by seeking and implementing solutions. Conversely, maladaptive coping represents emotional or defensive, self-protective approaches to dealing with stressful work experiences. Recognizing the possibility that the internal resources and ability of individuals to deal with stressful situations may differ (Pearlin and Schooler, 1978), an additional focus of this study was on assessing the influence of managers' personal and demographic characteristics on their reactions to job-related stressors.

RESEARCH METHOD

Data for this study were collected by means of questionnaires sent out by company mail to a random sample of 300 first level managers employed at a large utility company in the Midwest. Completed questionnaires were returned directly to the researcher by 205 persons, representing a response rate of 68 percent. Of the respondents, 54 percent were male, 46 percent female. The average age of the respondents was 39.6 years. The mean organizational tenure of the subjects was 16.7 years.

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Job Stressors. Five stressors were examined in this study: (1) role conflict, which refers to incompatible expectations associated with the job role; (2) role ambiguity, or lack of clarity regarding role expectations; (3) quantitatitve overload, or excessive volume of work; (4) qualitatitve overload, which refers to perceived pressure for quality and difficulty in reaching performance standards; and (5) interunit conflict, which reflects lack of cooperation and communication difficulties between departments.

Stress Reactions. The study investigated two types of reactions to the five job stressors, affective and behavioral. Felt stress represented the psychological response state of disturbed affect in relation to job stressors. Coping behaviors were defined as an array of overt behaviors by which an individual actively seeks to alleviate or respond to stressful conditions at work. The measures of adaptive and maladaptive coping behaviors were developed from responses to an open-ended questionnaire which asked individuals to generate a list of possible behaviors when faced with stressful working conditions. A group of twenty persons who were not part of the original subject pool generated a total of 176 unique items. A panel of twelve judges who were familiar with work organizations sorted the responses into specified categories.

The category of adaptitve coping behaviors consisted of thirty-three items and included such behaviors as planning, organizing, and prioritizing assignments; enlisting the support of others with organizational power; touching base with the superior and co-workers concerning projects in progress; requesting needed resources; making better use of clerical support; changing approaches when the cooperation of others is needed; and reading up on better ways of accomplishing work. Maladaptive coping behaviors included twenty-nine items: e.g., working harder but making more mistakes; making promises that cannot be kept; sticking to a single solution to problems; trying to do two things at once; holding back information from others; avoiding the supervisor or co-workers; telling the superior one is overloaded and "something must give"; and leaving the work place. Respondents were asked to check each behavior that they had used within the last two months to deal with stressful situations. The sum of the checked items within each category was used as a measure of the extent to which an individual exhibited adaptive and maladaptive coping behaviors. The personal characteristics investigated as possible moderators of managers' stress reactions were sex, organizational tenure, and trait anxiety, which reflects an individual's predisposition to be anxious and nervous.

RESULTS OF RESEARCH

Simple and partial correlational analyses were performed to determine the pattern of relationships among the variables investigated in the study.

The results of this research substantiated previous findings and provided additional evidence concerning the aversive personal outcomes associated with stressors at work in terms of felt or experienced stress. All five stressors were positively related to felt stress. Role conflict and quantitative overload were found to be more strongly related to felt stress than role ambiguity and qualitative overload respectively. The study extended stress research by identifying coping behaviors exhibited by managers in dealing with stressors encountered in the work place. The results confirmed the expectation that maladaptive coping behaviors would be positively and more strongly related to job stressors than adaptive coping behaviors. The data indicated that high levels of role conflict, role ambiguity, and quantitative or qualitative overload elicit more maladaptive coping behaviors than adaptive behaviors. It appears that when stressor conditions are low, individuals do not engage in active coping. When stressor conditions increase in strength, individuals react to alleviate the situation and respond with both adaptive and maladaptive behaviors, but the dysfunctional behaviors tend to dominate. Consistent with expectations, felt stress was found to be positively associated with maladaptive coping. Thus, the greater the extent of maladaptive behaviors engaged in by the manager, the greater the degree of experienced stress. The results did not demonstrate the expected inverse relationship between adaptive coping and felt stress. This suggests that adaptive coping may serve to neutralize felt stress but not reduce it.

With regard to personal variables, the results indicated that sex of the manager was unrelated to both felt stress and maladaptive coping but was weakly related to adaptive coping. The data showed a slight tendency for female managers to engage in more adaptive coping than male managers, a finding that tends to disconfirm the popular stereotype that women managers are too emotional and are unable to cope with the pressures inherent in the managerial role (Basil, 1973). Organizational tenure was found to be inversely related to felt stress and maladaptive coping. This tends to confirm McGrath's (1976) proposition that past experience affects the level of subjectively experienced stress and modifies reactions to it. The results indicate the role of learning and knowledge of the system in avoiding maladaptive behaviors when dealing with work-related stressors. The finding that organizational tenure was also negatively related to adaptive coping was unexpected. A possible explanation for this is that adaptive behaviors are learned through a trial and error process, and individuals may not have learned the appropriate responses for dealing with new and unfamiliar situations.

The role of trait anxiety in increasing an individual's vulnerability to stress was demonstrated by its strong positive relationship with both felt stress and maladaptive coping behaviors. The positive relationship between trait anxiety and adaptive coping suggests that anxiety about role performance prompts individuals to respond in some way to ameliorate stressful conditions; some of these behaviors turn out to be adaptive, but more are maladaptive in nature.

The results of the partial correlation analysis provided little evidence concerning the moderating influence of personal characteristics. Of the three personal variables

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Brief

POVERTY IN DETROIT

More than one in four of Detroit's population subsisted below the poverty threshold in 1980, according to figures published recently by the Bureau of the Census. The incidence of poverty in the Motor City was more than double the 1978 rate. Among the five United States cities for which annual poverty data are published, Detroit climbed from last to first place in the rate of poverty between 1978 and 1980.

City	1978	1979	1980
Detroit	12.1	18.1	28.6
Los Angeles-Long Beach	12.4	13.7	12.0
Chicago	18.4	23.6	23.7
New York	18.7	19.3	20.9
Philadelphia	19.8	18.3	21.3

THE POVERTY THRESHOLD

The official definition of poverty is based on the notion of absolute financial hardship, but, as a practical matter, the poverty line is a multiple of the income needed to purchase an "economy" diet, one that just meets minimum standards of nutrition and diversity. Government studies have shown that for households with three or more individuals the multiple is three, that is, a third of the budget goes for food. In two-person households food absorbs 27 percent of the budget, and for single individuals the ratio is even smaller. The proportion varies because relatively fixed costs, such as utilities, are spread among more people in larger households. In 1969 the poverty level per household translated into thresholds of $4,284 (single-person), $5,514 (two-person), and $6,442 (three-person). Thresholds also vary according to farm or nonfarm residence, because farmers have advantages such as home-grown, fresh vegetables and eggs. For example, the poverty line for a four-member farm family was $6,958 compared with one of $8,183 for a four-person nonfarm family. The same poverty thresholds apply in every region, despite differences in the cost of living. The statistical net catches the cases of unremitting poverty, and it snags those involving voluntary poverty and instances of temporary financial distress. It misses those whose incomes are above the poverty line but who experience poverty in the relative sense: middle-income families who sense inferiority to the Joneses.

On the basis of the cash criterion, about twenty-nine million Americans were poor in 1980. In Detroit, nearly 350,000 people lived in households where incomes were below the poverty line. In the region surrounding the city, over 200,000 individuals, about one in fourteen of the total population, were in this category (see Table 1). Poverty rates for the Detroit area and the nation's other large metropolitan areas are shown in Table 2.

The Current Population Survey, conducted in March of each year, is the source of income data used to develop the information on poverty for the nation, its geographic regions, and its twenty largest metropolitan areas. The March 1981 CPS was conducted among 65,500 households selected to be representative of the population as a whole. Sampling variability is associated with each of the numbers developed from the CPS, that is, a canvass of all households might have produced different statistics. Thus, these data should be interpreted as suggesting trends and not as precise measurements.

TABLE 1
Poverty among Persons and Families in the Detroit Standard Metropolitan Statistical Area and in All U.S. Standard Metropolitan Statistical Areas: 1976–1980

Item and year	Persons		Families	
	Inside central city	Outside central city	Inside central city	Outside central city
Detroit SMSA				
Number below poverty level (1,000)				
1976	249	135	55	28
1977	174	142	34	31
1978	144	135	28	30
1979	233	148	49	31
1980	345	205	74	46
Poverty rate[a]				
1976	20.4	n.a.	17.7	n.a.
1977	14.7	4.9	11.8	4.0
1978	12.1	4.5	9.1	3.8
1979	18.8	4.8	15.6	3.7
1980	28.6	6.9	26.2	5.7
All U.S. SMSAs				
Number below poverty level (1,000)				
1976	9,482	5,747	1,961	1,276
1977	9,203	5,657	1,925	1,216
1978	9,285	5,805	1,983	1,222
1979	9,500	6,232	1,970	1,261
1980	10,644	7,377	2,214	1,578
Poverty rate[a]				
1976	15.8	6.9	12.6	5.7
1977	15.4	6.8	12.5	5.4
1978	15.4	6.8	12.7	5.3
1979	15.7	7.2	12.7	5.4
1980	17.2	8.2	14.0	6.5

SOURCE: U.S. Department of Commerce, Bureau of the Census, **Current Population Reports**, Series P-60, no. 133, (Washington, D.C.: annually), and similar reports for 1976 1979.
a. Number below poverty level as a percentage of total population or number of families.

INCOME SIZE DISTRIBUTION

Income size distribution data from the CPS are reproduced in Table 3. These figures point to a sharp decline in Detroit households earning $15,000 to $25,000 per year, a sharp increase in those earning less than $10,000, and some increase in those earning over $25,000. Largely these data reflect the loss of middle-income factory jobs at Chrysler Corporation and the spin-off effects on other industries. Detroit experienced considerably more downward than upward income mobility, and that phenomenon produced a much sharper

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Michigan Economic Indicators

Item	Year previous of latest month	Previous month	Latest month
Manufacturing workers:			
Average weekly hours, Michigan	40.6	40.7	40.1 (Aug.)
Average weekly hours, U.S.	39.9	39.0	39.0 (Aug.)
Average hourly earnings, Michigan ($)	10.50	11.40	11.21 (Aug.)
Average hourly earnings, U.S. ($)	8.03	8.55	8.51 (Aug.)
U.S. motor vehicle production (units)	497,677	615,181	534,472 (Aug.)
Michigan electricity usage (mil. kwh.):			
Industrial (mil. kwh.)	2,648	2,348	2,415 (May)
Residential (mil. kwh.)	1,596	1,709	1,510 (May)
Raw steel production:			
Michigan (000 net tons)	794	597	550 (Aug.)
United States (000 net tons)	10,120	5,719	5,538 (Aug.)
Consumer price index (1967 = 100)			
Detroit area	283.5	292.4	292.7 (Aug.)
United States	276.5	292.2	292.8 (Aug.)
U.S. producer price index (1967 = 100)	295.5	300.6	299.5 (Sep.)
Michigan farm prices received index (1977 = 100)	131	127	120 (Aug.)

Sources: U.S. Bureau of the Census; U.S. Bureau of Labor Statistics; Michigan Crop Reporting Service; Motor Vehicle Manufacturers Association, Inc.; American Iron and Steel Institute; and Energy Information Administration.

Contracts for Future Building, First 8 Months: 1981 and 1982

(Thousands of Dollars)

Area	Nonresidential			Residential			Total[a]		
	1981	1982	Percentage Change	1981	1982	Percentage Change	1981	1982	Percentage Change
Ann Arbor	43,115	45,451	+ 5	25,520	15,271	+40	68,635	60,722	−12
Battle Creek	14,100	18,789	+ 33	10,763	7,052	−34	24,863	25,841	+ 4
Bay City	8,371	5,500	− 34	4,639	6,195	+34	13,010	11,695	−10
Detroit	562,483	314,800	− 44	260,985	197,826	−24	823,468	512,626	−38
Flint	26,101	13,538	− 48	24,485	20,232	−17	50,586	33,770	−33
Grand Rapids	87,481	58,510	− 33	82,135	53,962	−34	169,616	112,472	−34
Jackson	12,797	4,878	− 62	12,113	6,960	−43	24,910	11,838	−52
Kalamazoo-Portage	32,724	64,089	+ 99	53,061	22,083	−58	85,335	86,172	−.010
Lansing-East Lansing	39,087	33,762	− 14	80,705	26,197	−68	119,792	59,959	−50
Muskegon-Norton Shores-Muskegon Heights	7,351	16,276	+121	18,607	9,317	−50	25,958	25,593	− 1
Saginaw	9,490	15,468	+ 63	17,790	8,110	−54	27,280	23,578	−14
Toledo	122,902	62,405	− 49	108,960	60,990	−44	231,862	123,395	−47
Michigan	987,130	666,151	− 33	838,200	565,501	−33	1,825,330	1,231,652	−33
United States	40,018,300	38,060,900	− 5	43,219,100	36,403,800	−16	83,237,400	74,464,700	−11

SOURCE: F. W. Dodge Division of McGraw-Hill Information Systems Company, news releases.

Note: Battle Creek includes Barry and Calhoun counties; Detroit includes Lapeer, Livingston, Macomb, Oakland, St. Clair, and Wayne counties; Flint includes Genesee and Shiawassee counties; Grand Rapids includes Kent and Ottawa counties; Kalamazoo-Portage includes Kalamazoo and Van Buren counties; Lansing-East Lansing includes Clinton, Eaton, Ingham, and Ionia counties; Muskegon-Norton Shores-Muskegon Heights includes Muskegon and Oceana counties; and Toledo includes Monroe County, Michigan, and Fulton, Lucas, Ottawa, and Wood counties, Ohio.

a. Excludes nonbuilding construction contracts. This category comprises streets and highways, bridges, dams, reservoirs, river and harbor developments, sewerage and water supply systems, missile and space flight facilities, airports, utilities, and communication systems. For Michigan the 1981 and 1982 figures for nonbuilding construction contracts were $607,711,000 and $387,734,000 respectively, or a decrease of 36 percent. For the United States they were $22,041,800,000 and $23,514,500,000 respectively or an increase of 7 percent. Total building and nonbuilding construction contracts declined by 33 percent in Michigan and 7 percent nationwide.

Year-to-Year Change in Selected Economic Indicators

Indicator	Percentage change from previous year												
	1981					1982							
	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
Civilian Employment													
United States	+ 1.9	+ 1.1	+ 1.0	+ 0.7	0	− 0.3	− 0.5	− 0.9	− 1.5	− 0.9	− 0.7	− 1.1	− 1.0
Michigan	+ 2.8	+ 1.7	+ 1.9	+ 1.4	− 2.5	− 2.1	− 1.0	− 3.4	+ 5.0	− 3.5	− 5.0	− 3.0	− 4.0
Detroit area SMSA[a]	+ 1.2	+ 0.8	+ 0.6	+ 0.6	− 3.7	− 3.0	− 2.2	− 4.3	− 5.8	− 4.2	− 5.8	− 4.0	− 4.6
Outstate[b]	+ 4.2	+ 2.5	+ 2.9	+ 2.1	− 1.5	− 1.3	− 0.1	− 2.7	− 4.4	− 2.9	− 4.4	− 2.2	− 3.5
Wage and Salary Jobs[c]													
United States	+ 1.5	+ 1.4	+ 1.1	+ 0.5	− 0.1	− 0.5	− 0.5	− 0.8	− 1.1	− 1.1	− 1.4	− 1.7	− 2.1
Michigan	− 0.7	+ 0.3	− 1.9	− 2.9	− 4.3	− 4.4	− 4.0	− 4.5	− 5.4	− 5.1	− 5.0	− 5.1	− 4.2
Detroit area SMSA[a]	− 1.6	− 0.7	− 2.6	− 3.5	− 5.0	− 4.7	− 4.7	− 4.8	− 5.7	− 5.5	− 6.0	− 5.3	− 4.6
Outstate[b]	+ 0.1	+ 1.2	− 1.2	− 2.3	− 3.6	− 4.1	− 3.3	− 4.1	− 5.1	− 4.8	− 4.1	− 4.9	− 3.9
Average Workweek[d]													
United States	+ 1.3	− 0.8	− 0.3	− 1.2	− 2.2	− 7.0	− 0.8	− 2.0	− 2.5	− 2.7	− 2.5	− 1.8	− 2.3
Michigan	+ 3.0	− 3.5	− 1.5	− 2.7	− 4.3	−10.5	+ 2.3	− 2.9	− 1.0	− 2.2	− 0.5	+ 1.0	− 1.2
Average Weekly Earnings[e]													
United States	+11.2	+ 9.0	+ 8.5	+ 6.6	+ 5.0	+ 1.3	+ 6.8	+ 5.0	+ 4.2	+ 3.8	+ 4.1	+ 4.7	+ 3.6
Michigan	+15.0	+ 6.9	+ 7.5	+ 5.9	+ 2.7	+ 1.9	+11.0	+ 5.2	+ 7.2	+ 5.6	+ 7.4	+ 9.6	+ 5.3
Motor Vehicle Assembly													
United States	+25.4	−12.4	−18.4	−24.6	−24.2	−33.1	−23.7	−15.7	−16.2	−14.3	−12.7	− 3.5	+ 1.4
Michigan	+53.5	+ 7.3	− 3.5	−13.6	−20.4	−19.4	− 8.3	− 6.9	− 4.3	− 6.9	− 4.8	+ 4.4	+ 9.2
General Motors	+29.8	+ 7.5	+ 4.3	− 6.2	− 9.7	−16.3	+ 3.1	−12.3	−12.1	−14.4	+ 1.3	+15.6	+36.4
Ford	+59.3	+14.1	−10.5	−30.7	−53.7	−46.0	−19.5	+ 9.2	+16.8	+19.5	− 6.6	− 1.0	−28.2
Chrysler	+255.6	− 9.9	−22.8	−11.8	−12.7	+20.2	−44.5	− 6.8	− 0.8	−13.5	−30.0	−43.6	+ 4.7
Steel Tonnage Poured													
United States	+44.2	+23.8	− 4.7	−20.8	−24.6	−26.9	−28.4	−31.5	−37.9	−41.3	−42.1	−43.7	−45.3
Michigan	+75.7	+25.3	−21.4	−22.4	−13.3	−35.1	−35.8	−34.2	−25.8	−21.7	−23.3	−24.6	−30.7
Commercial Electricity Consumption													
United States	+ 0.3	− 0.3	+ 1.7	+ 2.1	+ 2.3	+ 4.0	+ 5.1	+ 5.5	+ 5.6	+ 1.8			
Michigan	+ 1.1	− 0.2	− 1.9	− 2.6	0	− 2.8	+ 4.0	− 0.8	+ 1.9	− .2			
Industrial Electricity Consumption													
United States	+ 6.9	+ 2.0	− 0.4	− 2.2	− 6.4	− 6.2	− 6.9	− 6.0	− 7.9	− 9.1			
Michigan	+ 8.1	− 0.8	− 9.7	− 7.6	−19.4	−10.7	−17.2	− 9.6	−11.2	− 8.8			
Nonresidential Construction Contracts													
United States									−16	−15	+10	−10	
Michigan	+16	−11	−38	−76	−52	−24	−52	−14	−55	−62	+30	−37	−33
Residential Construction Contracts													
United States									−15	−29	− 5	−12	+11
Michigan	−40	−36	−47	−60	−53	−44	−58	−47	−42	−36	−29	−40	−33
Nonbuilding Construction													
United States									+ 8	+ 5	+ 8	+ 7	+52
Michigan	− 3	+32	− 8	−17	+ 9	+ 7	−52	−37	−72	− 1	−23	−36	−36
Retail Sales													
United States	+ 9.5	+10.9	+ 6.3	+ 4.7	+ 5.7	+ 0.2	+ 2.7	+ 2.6	+ 2.6	+ 3.8	+ 1.1	+ 2.2	
Michigan	+ 5.4	+ 7.3	+ 1.3	+ 0	+ 0.5	−11.2	− 6.3	− 5.7	− 5.3	+ 0.3	− 4.2	− 2.8	
Detroit Area[a]	+ 2.3	+ 4.3	− 1.6	− 2.6	− 3.9	−17.2	−13.6	−14.3	−14.6	− 8.3	− 9.7	− 8.1	
Outstate[b]	+ 8.8	+10.5	+ 4.9	+ 2.9	+ 5.7	− 4.2	+ 2.2	+ 4.2	+ 5.7	+ 9.9	+ 1.2	+ 2.7	
Consumer Price Index													
United States	+10.9	+11.0	+10.2	+ 9.6	+ 8.9	+ 8.4	+ 7.7	+ 6.8	+ 6.6	+ 6.7	+ 7.1	+ 6.3	+ 5.9
Detroit[a]	+11.1	+ 9.5	+ 6.5	+ 5.0	+ 3.2	+ 4.6	+ 2.8	+ 3.7	+ 4.1	+ 3.9	+ 3.1	+ 3.3	+ 3.2

Source: Michigan Employment Security Commission, special release; Bureau of Labor Statistics, **The Employment Situation** (monthly); Motor Vehicle Manufacturers Association, special release; American Iron and Steel Institute, special release; Energy Information Administration, special release; F. W. Dodge Division of McGraw-Hill Information Systems Company, news release (monthly); and Bureau of the Census. **Monthly Retail Trade.**

a. Wayne, Oakland, Macomb, Livingston, Lapeer, and St. Clair counties.
b. Michigan minus Detroit area.
c. The number of wage and salary jobs, except agricultural, reported by employers.
d. Average hours worked by manufacturing production workers.
e. Average earnings among manufacturing production workers.

Quarterly Personal Income in Michigan

	Millions of dollars, annual rates, seasonally adjusted							Percentage change	
	1980		1981				1982	82(1) to 82(2)	
	4	1	2	3	4	1	2	Michigan	United States
TOTAL LABOR AND PROPRIETORS INCOME BY PLACE OF WORK									
BY TYPE									
Wage and salary disbursements	59,316	59,988	61,364	61,856	60,274	60,380	61,853	+ 2.4	+ 1.0
Other labor income	7,372	7,523	7,800	7,938	7,765	7,951	8,355	+ 5.1	+ 2.2
Proprietors income	4,308	4,360	4,362	4,395	4,299	4,108	4,142	+ .8	+ 1.4
Farm	488	423	445	537	489	353	354	+ .3	+ .8
Nonfarm	3,820	3,937	3,917	3,858	3,810	3,755	3,788	+ .9	+ 1.5
BY INDUSTRY									
Farm	749	680	599	788	740	610	619	+ 1.5	+ 1.2
Nonfarm	70,247	71,192	72,828	73,401	71,598	71,829	73,730	+ 2.6	+ 1.1
Private	60,600	61,575	63,170	63,699	61,803	62,086	63,732	+ 2.6	+ 1.1
Ag. Serv., For., Fish., and other	164	171	169	169	170	166	162	− 2.4	+ .3
Mining	357	363	396	433	413	424	344	−18.9	− 3.9
Construction	3,045	3,121	3,114	2,994	2,938	2,809	2,633	− 6.3	+ .3
Manufacturing	28,767	29,431	30,355	30,596	28,693	28,964	30,568	+ 5.5	+ .4
Nondurable goods	4,607	4,679	4,865	4,857	4,680	4,833	5,002	+ 3.5	+ .9
Durable goods	24,160	24,753	25,490	25,739	24,013	24,132	25,566	+ 5.9	+ .1
Transportation and public utilities	4,128	4,056	4,197	4,270	4,192	4,265	4,272	+ .2	+ .7
Wholesale trade	3,730	3,778	3,861	3,944	4,006	3,952	3,906	− 1.2	+ 1.0
Retail trade	6,292	6,299	6,391	6,514	6,380	6,293	6,326	+ .5	+ 1.8
Finance, insurance, and real estate	2,948	2,861	2,966	2,993	3,035	3,060	3,118	+ 1.9	+ 2.9
Services	11,170	11,495	11,722	11,787	11,976	12,153	12,402	+ 2.0	+ 2.0
Government and government enterprise	9,648	9,617	9,658	9,702	9,795	9,743	9,998	+ 2.6	+ 1.3
Federal, civilian	1,214	1,215	1,214	1,238	1,264	1,240	1,283	+ 3.5	+ .1
Federal, military	224	226	229	236	268	264	267	+ 1.1	+ .1
State and local	8,210	8,176	8,215	8,227	8,264	8,239	8,449	+ 2.5	+ 1.8
DERIVATION OF PERSONAL INCOME BY PLACE OF RESIDENCE									
Total labor and proprietors income by place of work	70,996	71,871	73,527	74,189	72,338	72,439	74,349	+ 2.6	+ 1.1
Less: Personal contributions for social insurance by place of work	3,491	3,828	3,910	3,921	3,794	3,915	4,001	+ 2.2	+ .7
Net labor and proprietors income by place of work	67,505	68,043	69,617	70,268	68,544	68,524	70,349	+ 2.7	+ 1.1
Plus: Residence adjustment	452	468	467	475	476	472	472	—	+ 1.4
Net labor and proprietors income by place of residence	67,957	68,511	70,084	70,744	69,020	68,996	70,821	+ 2.6	+ 1.1
Plus: Dividends, interest, and rent	13,348	14,384	15,112	15,964	16,461	16,826	17,320	+ 2.9	+ 2.8
Plus: Transfer payments	14,193	13,970	14,030	14,305	14,673	14,727	15,555	+ 5.6	+ 3.0
State U.I. benefits	1,300	1,071	1,251	1,058	1,472	1,445	2,027	+40.2	+26.5
Transfers excluding state U.I.	12,893	12,899	12,779	13,247	13,201	13,282	13,528	+ 1.8	+ 1.8
Personal income by place of residence	95,499	96,864	99,225	101,012	100,154	100,549	103,697	+ 3.1	+ 1.7

Source: Bureau of Economic Analysis, special release.

BRIEF

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increase in the gap between the haves and have-nots here than nationally, not only within the central city but between the central city and its suburbs.

When the 1982 income and poverty data are released in July 1984, they likely will reveal further erosion in the ranks of Detroit's middle class since the unemployment rate has risen since 1980. Ultimately, recovery in the automotive industry will be reflected in the income and poverty figures; however, it seems unlikely that the fortunes of Detroit's middle class will be fully restored to their 1978 levels during this decade. Too many automotive jobs are permanently lost to automation, downsizing and imports. The kinds of industries likely to flourish here during the rest of the 1980s cannot provide enough middle income jobs to absorb these displaced workers.

TABLE 2
Poverty Rate for the Twenty Largest Standard Metropolitan Statistical Areas: 1978 and 1980

Area	Persons		Families	
	1978	1980	1978	1980
New York	13.6	15.7	11.9	12.6
Los Angeles-Long Beach	10.9	11.7	8.9	9.0
Chicago	9.7	12.9	7.4	10.7
Philadelphia	11.2	11.7	9.3	9.4
Detroit	6.6	13.1	5.3	11.1
San Francisco-Oakland	7.6	7.9	5.4	6.0
Washington, D.C.	6.1	8.3	4.6	6.0
Boston	11.9	10.7	7.8	10.3
Pittsburgh	5.6	8.1	4.4	5.6
St. Louis	9.2	10.5	7.4	8.4
Baltimore	10.2	10.9	8.4	9.4
Cleveland	5.7	7.5	4.5	6.6
Houston	11.9	10.7	10.0	8.9
Newark	11.7	9.0	9.8	7.5
Minneapolis-St. Paul	6.1	7.3	4.7	4.8
Dallas	6.8	11.3	5.7	9.1
Seattle-Everett	6.7	8.8	6.3	7.3
Anaheim-Santa Ana-Garden Grove	5.4	7.0	3.3	5.7
Milwaukee	6.0	7.7	5.1	5.9
Atlanta	12.3	9.5	10.3	7.0
All U.S. SMSAs	10.4	11.9	8.3	9.4

SOURCE: U.S. Department of Commerce, Bureau of the Census, **Current Population Reports**, Series P-60, nos. 124 and 133 (Washington, D.C.: annually).

TABLE 3
Income Size Distribution, Median, and Mean Income Among Detroit Area and All U.S. Standard Metropolitan Statistical Area Households: 1978 and 1980

Income class	Detroit (city)		Detroit (suburbs)		U.S. All central cities		U.S. All suburbs	
	1978	1980	1978	1980	1978	1980	1978	1980
	(number of households in thousands)							
Under $10,000	153	193	167	156	9,004	8,013	7,169	6,157
$10,000–$14,999	57	45	105	96	3,987	3,781	4,374	4,109
$15,000–$19,999	86	55	155	104	3,462	3,268	4,694	4,012
$20,000–$24,999	59	30	127	133	2,440	2,711	4,150	4,136
$25,000–$29,999	32	38	116	133	1,627	2,021	3,057	3,501
$30,000–$49,999	53	73	226	290	2,204	3,590	4,778	7,219
$50,000 and over	6	9	79	106	634	1,088	1,213	2,470
Total	446	445	974	1,018	23,363	24,473	29,436	31,599
	(median and mean income)							
Median income	$15,623	$12,676	$22,392	$26,000	$13,089	$15,629	$18,239	$21,699
Mean income	16,672	16,635	24,962	28,000	16,305	19,237	20,743	24,757

SOURCE: U.S. Department of Commerce, Bureau of the Census, **Current Population Reports**, Series CPRP-60, nos. 126 and 132 (Washington, D.C.: annually).

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COPING WITH JOB STRESS

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examined, only trait anxiety accounted for a small but significant part of the associations between stressors, felt stress, and coping. The results indicated that when trait anxiety was held constant, the magnitude of the associations between stressors and maladaptive coping behaviors declined. The results showed that gender did not materially alter the pattern of relationships and stress reactions. This suggests that previously observed sex differences may have been a result of males and females occupying jobs at different levels of the organizational hierarchy. Organizational tenure also failed to have the expected moderating effects on the relationships between job stressors, felt stress, and coping. Additional research using multivariate techniques of analysis needs to be done to isolate other personal and organizational variables that might explain a larger part of the variations in stress reactions and coping.

The present study represents a first step in the identification of adaptive and maladaptive coping mechanisms. While further research needs to be done to refine and elaborate the measures of coping, the results of this study suggest that training programs might be useful in helping individuals learn adaptive coping behaviors and reduce the incidence of dysfunctional coping behaviors. It is also likely that effective coping may constitute an important intervening variable between felt stress and second level outcomes such as performance, absenteeism, and turnover.

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